

# PURE TAP REPORT



*The Pure Tap Report is the “message in the bottle.” Over 850,000 people in Louisville Metro and parts of Bullitt and Oldham Counties depend on Louisville Water Company (LWC) for superior water quality. The Pure Tap Report gives you information about your drinking water and LWC’s commitment to quality and service.*



*A tunnel 175 feet in the aquifer will collect “naturally” filtered river water.*

## QUALITY FROM OUR TAP TO YOURS

Our customers expect safe and reliable drinking water every time they turn on a faucet. Each day LWC scientists perform 300 tests on the drinking water. In fact, LWC’s water quality ranks in the top three among the 50 largest US cities, according to data collected by the NGO Environmental Working Group from 2002-2006.

Construction began in 2007 on a project that will help maintain water quality and meet stricter state and federal standards. LWC is building a network of wells, connected by a tunnel in the bedrock at our B.E. Payne Plant in Prospect. Riverbank filtration uses the natural filtering properties of the sand and gravel in the ground to clean river water. A test well at the Payne Plant has operated since 1999. Based on its success, we’re expanding the program to take up to 60 million gallons a day from the aquifer. This project is scheduled to be complete by late 2009.

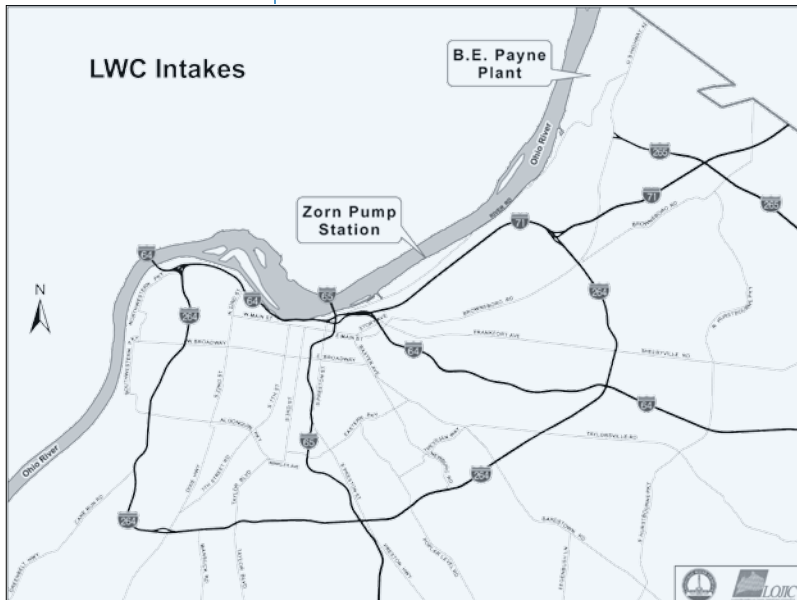
## AN ABUNDANT SOURCE

The Ohio River is the source for your drinking water. When a severe drought spread across Kentucky in 2007, the Ohio River proved to be a valuable resource. While many other water utilities in our region had to take measures to reduce consumption, the Ohio River provided more than enough water to meet our customers’ needs. The river, along with our advanced treatment methods, gives us the capability to provide water for communities outside Louisville Metro.

## THE SOURCE

LWC is the public water supplier in Louisville Metro and parts of Bullitt and Oldham Counties. LWC operates two surface water treatment plants with intakes on the Ohio River and also draws water through the aquifer next to the river at the B.E. Payne Plant.

In October 2003, the Kentucky Division of Water approved a Source Water Assessment and Protection Plan for Jefferson County. The plan looks at LWC’s susceptibility to potential sources of contamination. The plan identified spills of hazardous materials on the Ohio River and permitted discharges of sanitary sewers as the highest contamination risks. In Jefferson County, land use in the protection area is primarily zoned for residential and commercial use, with only a few industrial sites. In Oldham and Trimble Counties (areas bordering the Ohio River to the north of our intakes) land use is primarily zoned for residential and agricultural use. Therefore source water contaminant risks are relatively low. LWC maintains an Emergency Preparedness and Disaster Services Plan to address potential contaminant risks. To view the entire Source Water Assessment and Protection Plan contact Jim Smith at 569-3600.



*LWC draws surface water from the Ohio River at the Zorn Avenue Pump Station and the B.E. Payne Plant. LWC also draws water from a Riverbank Filtration well at the Payne Plant.*

## PROTECTING OUR SOURCE

Since LWC draws water from the ground with riverbank filtration wells, protecting the water deep in the ground is important.

In 2007, LWC was awarded a Pollution Source Reduction Grant from the Pollution Prevention section of the US EPA. The project involves demonstrating the use of native plants in landscaping and lawns. Using these native plants can reduce the use of pesticides and fertilizers, reduce mowing, lower maintenance costs and promote beneficial wildlife habitats. LWC will monitor and measure any changes in the ground water chemistry related to the reduction of fertilizer and pesticide use. The Source Reduction Grant also contains funds for developing educational materials and outreach programs.

The Kentucky Division of water approved LWC’s Wellhead Protection Plan (WHHP) in 2004. The goal is to safeguard groundwater feeding into the wells from contamination within the Wellhead Protection Area (WHPA) in Prospect. LWC continuously updates the plan. New residents and businesses in the protection area receive information about the WHPP and educational materials. The information is also on our web site.

## CUSTOMER INPUT

**LWC’s Customer Advisory Council meets every eight weeks. The Board of Water Works meets the second Tuesday of each month at 12:30pm at 550 South Third Street.**



2007 WATER QUALITY DATA

Data is from testing done in 2007, unless otherwise noted, in accordance with 401 KAR Chapter 8. All figures are well below EPA guidelines. Your drinking water meets the strict health standards set by the EPA.

REGULATED SUBSTANCES - TREATMENT PLANTS

Water Quality Data 2007	Crescent Hill Filter Plant (CHFP)			B. E. Payne Water Treatment Plant (BEP)						
Substance (units)	CHFP Average	Highest Compliance Level Detected	Range of Detections	BEP Average	Highest Compliance Level Detected	Range of Detections	MCL	MCLG	Compliance Achieved	Typical Source of Contamination
<i>Inorganic</i>										
Barium (ppm)	0.03	0.03	one measurement	0.02	0.02	one measurement	2	2	Yes	Drilling waste, metal refineries, erosion of natural deposits
Chromium (ppb)	7.3	7.3	one measurement	8.7	8.7	one measurement	100	100	Yes	Steel and pulp mill waste, erosion of natural deposits
Fluoride (ppm)	1.00	1.16	0.87 - 1.16	0.98	1.08	0.87 - 1.08	4	4	Yes	Additive that promotes strong teeth, fertilizer and aluminum factories, erosion of natural deposits
Nickel (ppb)	7.8	7.8	one measurement	6.9	6.9	one measurement	*n/a	n/a	Yes	Runoff from landfills and cropland, metal refineries. erosion of natural deposits
Nitrate (ppm)	1.0	1.2	0.85 - 1.2	0.77	0.89	0.68- 0.89	10	10	Yes	Runoff from fertilizer & leaching from septic tanks, erosion of natural deposits
Nitrite (ppm)	BDL	0.013	BDL - 0.013	BDL	BDL	BDL	1	1	Yes	Runoff from fertilizer & leaching from septic tanks, erosion of natural deposits
Turbidity (NTU)	0.04	0.09 100% ≤ 0.3	0.02 - 0.09	0.05	0.09 100% ≤ 0.3	0.03 - 0.09	TT 100% ≤ 1.0 and 95% ≤ 0.3	n/a	Yes	Soil runoff

\*The MLC for Nickel was recommended by USEPA in February 1995.

Organic

Total Organic Carbon (Removal Ratio)	1.41	Lowest RAA Removal Ratio 1.35	0.77 - 1.87	1.55	Lowest RAA Removal Ratio 1.19	0.85 - 2.19	TT (≥ 1.00)	n/a	Yes	Naturally present in the environment
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Total Organic Carbon occurs in source waters from natural substances such as decayed leaves and animal wastes. It can combine with chlorine used in disinfection to form disinfection byproducts. TOC is measured in parts per million (ppm) but compliance with the treatment technique (TT) is based on a running annual average of the monthly ratios of the percent TOC treatment removal compared to the required removal. A minimum annual average ratio of 1.00 is required. In 2007, LWC met the TOC treatment technique requirement.

Radionuclides

Uranium (ug/L)**	0.14	0.24	0.01 - 0.24	0.25	0.34	0.04 - 0.34	**30	0	Yes	Erosion of natural deposits
Alpha Emitters (pCi/L)	1.0	2.6	-0.22 - 2.6	0.87	2.2	0.05 - 2.2	15	0	Yes	Erosion of natural deposits
Combined Radium (pCi/L) (Reported as Radium 226 & 228)	0.68	1.00	0.23 - 1.00	0.87	1.93	0.33 - 1.93	5	0	Yes	Erosion of natural deposits

\*\* The MCL for Uranium is 30 ug/L or 20 pCi/L. Values were reported in pCi/L then converted to ug/L.

REGULATED SUBSTANCES - DISTRIBUTION SYSTEM

Substance (units)	Annual Average	Highest Compliance Level Detected	Range of Detections	MCL	MCLG	Compliance Achieved	Typical Source of Contamination
Total Trihalomethanes (ppb)	24.0 (RAA)	24.9 (RAA)	14.2 - 44.1	80	n/a	Yes	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb) (IDSE)	IDSE (initial distribution system evaluation) is a study to determine future induvidual sites. The IDSE was initiated in November 2007		23.2 - 33.8	n/a	n/a	Yes	Byproduct of drinking water disinfection
Haloacetic Acids (ppb)	15.6 (RRA)	17.2 (RAA)	7.9 -25.8	60	n/a	Yes	Byproduct of drinking water disinfection
Haloacetic Acids (ppb) (IDSE)	IDSE (initial distribution system evaluation) is a study to determine future induvidual sites. The IDSE was initiated in November 2007		10.2 - 22.6	n/a	n/a	Yes	Byproduct of drinking water disinfection
Chloramines (ppm)	2.7 (RAA)	2.7 (RAA)	1.0 - 3.5	MRDL = 4.0	MRDLG = 4	Yes	Water additive used to control microbes
Total Coliform (% positive)	0.1%	0.65%	0 - 0.65%	≤ 5% positive samples/month	0	Yes	Naturally present in the environment

REGULATED SUBSTANCES - AT CUSTOMER'S TAP

Substance (units)	Highest single result	# Results Exceeding AL	90th percentile	Range of Detections	AL	MCLG	Compliance Achieved	Typical Source of Contamination
Copper (ppm) (2005)	0.32	0	0.12	0.01 - 0.32	AL 90% ≤ 1.3	1.3	Yes	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (2005)	17.0	1	6.5	BDL - 17.0	AL 90% ≤ 15	0	Yes	Corrosion of household plumbing systems; erosion of natural deposits

Lead and copper results are from 2005 and the most recent required testing done in accordance with the regulation. All samples were taken at customer's taps meeting lead and copper plumbing and water holding time criteria. 60 sites were tested, one (1) sample exceeded the Action Level for lead; none exceeded the Action Level for copper.

**Cryptosporidium:** For Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), LWC monitors for Cryptosporidium, a tiny intestinal parasite often found in surface waters like the Ohio River. Cryptosporidium can cause flu-like symptoms if ingested. In 2007, LWC analyzed 35 Ohio River samples. We detected low levels of Cryptosporidium in five samples with levels ranging from 0 oocysts/L to 1.1 oocysts/L. These detections were within ranges typically measured in the Ohio River. LWC optimizes its treatment processes to help ensure removal.

INFORMATION ABOUT LEAD:

When drinking water leaves the treatment plants, it does not contain lead. Lead problems most often occur in the customer's plumbing.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

ADDITIONAL WATER QUALITY DATA

pH - 8.2 SU

Calcium (as Ca) - 47 mg/L


Hardness (as CaCO3) - 165 mg/L (9.6 grains/gallon)

Sodium (as Na) - 30 mg/L

Magnesium (as Mg) - 12 mg/L

Alkalinity (as CaCO3) - 78 mg/L

mg/l - milligrams per liter  
su - standard units  
Data is an average of Cresent Hill and  
B.E. Payne Treatment Plants



TOC Monitoring and Reporting Violations - LWC received two Monitoring and Reporting Violations for total organic carbon in February 2007. This was due to a computer printing error by a LWC contract lab. There were no health risks or populations at risk. All required testing was done and showed that water quality has remained in compliance with safety standards. LWC added levels of routine review and continues to work with the State to develop more effective and timely report-checking process. You have already been notified of this via newspaper and direct mail.

MESSAGE FROM THE EPA

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. FDA regulations establish limits for contaminants in bottled water that shall provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

The sources of drinking water, both tap water and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land and through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; Inorganic contaminants, such as salts and metals, that may be naturally-occurring or result from urban stormwater runoff, and residential uses; Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems; and Radioactive contaminants, which may be naturally-occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).





Dear Louisville Water Company Customer,

As Louisville Water Company's new President, I'm pleased to provide you with Louisville Water Company's (LWC) annual water quality report. LWC has a remarkable tradition of providing high quality water and customer service to the communities we serve. I'm excited to work with a dedicated group of employees to build upon the company's legacy.

The Pure Tap Report provides detailed information about the quality of your drinking water. LWC prepared this report to meet Environmental Protection Agency (EPA) requirements under the Safe Drinking Water Act Amendment.

The "message in the bottle" is drinking water – water that is safe and reliable. Your drinking water meets the strict health standards the EPA sets. Your health, the public's health is the core of our business; each day thousands of people depend on LWC to provide high quality water.

The Ohio River, the source for your drinking water, provides an abundant supply. We are fortunate to have this natural resource. As you read through the Pure Tap Report, you'll learn about the importance of the river to our business in 2007 and the success LWC achieved in providing outstanding water quality.

Greg Heitzman  
President, Louisville Water Company

## QUESTIONS ABOUT THIS REPORT?

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569-3695  
bcrow@lwcky.com

## CALL CENTER

(502) 583-6610  
custsvc@lwcky.com  
Monday – Friday 8am to 8pm  
Saturday 8:30am to 12:30pm  
Bullitt County Customers  
1-888-535-6262

## CUSTOMER SERVICE

- Call at least two days before you want service started or discontinued
- Use the automated system to check your balance or pay by credit card
- Consider automatic draft; the money is automatically deducted from a checking or savings account on the due date you select.
- LWC can install an irrigation service and meter on an existing water service. This allows you to separate irrigation water usage from residential use. There are no sewer charges on irrigation services.
- Visit [www.louisvillewater.com](http://www.louisvillewater.com) to learn more about service and payment options

## AN AMAZING RESOURCE

*Every day 90 billion gallons of water flows past Louisville. On average, LWC takes 136 million gallons a day from the river.*

*The Ohio River carries the largest volume of water of any tributary of the Mississippi River.*



## GET FREE PURE TAP BOTTLES

LWC provides Pure Tap bottles to use at home, school, church, civic meetings and sporting events. Call 569-3600 and ask for public information or email [puretap-bottles@lwcky.com](mailto:puretap-bottles@lwcky.com)



LOUISVILLE WATER COMPANY

550 South Third Street  
Louisville, KY 40202

## WHAT'S THE MESSAGE IN THE BOTTLE?

**Annual Water Quality Report**

